

Monolithic content at a page break

CSS Fragmentation Level 3 §2 makes a scroll container — any box with overflow other than visible — monolithic: it may not be split, so where it would straddle a page boundary it moves to the next page whole. The two cards below are identical apart from that one declaration.

Filler paragraph 1. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 2. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 3. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 4. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 5. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 6. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 7. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 8. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 9. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 10. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 11. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 12. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 13. This body copy pushes the cards down the page so that each one meets the page boundary rather than sitting comfortably inside a single page.

Filler paragraph 14. This body copy pushes the cards down the page so that each

one meets the page boundary rather than sitting comfortably inside a single page.

OVERFLOW: VISIBLE

This card is split

Nothing forbids a break inside it, so the page boundary cuts straight through: its border and its gradient background end on one page and resume on the next.

Filler paragraph 15. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 16. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 17. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 18. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 19. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 20. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 21. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 22. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 23. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 24. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 25. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 26. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 27. The same run of body copy again, so the second card meets the

following page boundary at the same place its twin met the first one.

Filler paragraph 28. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 29. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

Filler paragraph 30. The same run of body copy again, so the second card meets the following page boundary at the same place its twin met the first one.

OVERFLOW: HIDDEN

This card moves whole

Being a scroll container makes it monolithic, so rather than being cut in half it is carried wholesale onto the next page, leaving the gap above it.

Trailing paragraph 31, so the move above has visible content after it.

Trailing paragraph 32, so the move above has visible content after it.

Trailing paragraph 33, so the move above has visible content after it.

Trailing paragraph 34, so the move above has visible content after it.

A relocated box is laid out again, not slid down

A box that had already begun flowing its own text across the boundary cannot simply be shifted: its later lines were laid out against the next page's top, so moving the box would carry that distance into it as blank space and leave it reporting height it does not use. The card below holds several lines and meets the boundary part-way through them.

Filler paragraph 35. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 36. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 37. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 38. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 39. This run positions the multi-line card so the page boundary falls

between its own lines rather than above it.

Filler paragraph 40. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 41. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 42. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 43. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

Filler paragraph 44. This run positions the multi-line card so the page boundary falls between its own lines rather than above it.

OVERFLOW: HIDDEN — MULTI-LINE

Its lines stay evenly spaced

The page boundary falls part-way through this paragraph, so the box is relocated after some of its text had already been placed on the following page. Because it is laid out again at its destination rather than translated to it, the lines below run on at their normal spacing instead of opening up a band of blank space part-way down the card.

A second paragraph, so the break has somewhere to fall between lines and the effect is visible rather than hidden by a lucky alignment of the page grid.

Trailing paragraph 45.

Trailing paragraph 46.

Trailing paragraph 47.

The container travels with it

A break point before a container's first child *is* the break point before the container (§3.1), so when the child moves the container moves with it. Left behind, the panel below would span the boundary and print an empty copy of its own border and background on the page its contents had just left.

Filler paragraph 65. This run puts the panel's own first child across the page boundary.

Filler paragraph 66. This run puts the panel's own first child across the page

boundary.

Filler paragraph 67. This run puts the panel's own first child across the page boundary.

Filler paragraph 68. This run puts the panel's own first child across the page boundary.

Filler paragraph 69. This run puts the panel's own first child across the page boundary.

Filler paragraph 70. This run puts the panel's own first child across the page boundary.

Filler paragraph 71. This run puts the panel's own first child across the page boundary.

Filler paragraph 72. This run puts the panel's own first child across the page boundary.

FIRST CHILD — MONOLITHIC

The panel moves too

This card may not be split, so it starts on the next page. The panel around it is not what asked for the break, but the break point is the panel's own, so the panel opens on that page as well rather than being cut open on this one.

A second child, so the panel is visibly more than the card it wraps.

Trailing paragraph 75.

Trailing paragraph 76.

Trailing paragraph 77.

Inside a flex or grid container

A flex line and a grid row are break points too. The row below asks not to be broken, so it moves to the next page as a unit — every item in it, not only the one that asked, because the cross-axis alignment holds them together.

Filler paragraph 55. This run puts the row below at the foot of its page.

Filler paragraph 56. This run puts the row below at the foot of its page.

Filler paragraph 57. This run puts the row below at the foot of its page.

Filler paragraph 58. This run puts the row below at the foot of its page.

Filler paragraph 59. This run puts the row below at the foot of its page.

Filler paragraph 60. This run puts the row below at the foot of its page.

Filler paragraph 61. This run puts the row below at the foot of its page.

Filler paragraph 62. This run puts the row below at the foot of its page.

Filler paragraph 63. This run puts the row below at the foot of its page.

Filler paragraph 64. This run puts the row below at the foot of its page.

FLEX ITEM

One

Its line meets the page boundary, so the whole line moves.

FLEX ITEM

Two

It moves with its neighbour rather than being left behind.

GRID ITEM

Three

A grid row travels together for the same reason.

GRID ITEM

Four

An item spanning several rows travels with the first of them.

The lines below a moved one follow it

A wrapping flex container whose middle line meets the page boundary. That line moves to the next page, and every line below it moves with it — a line does not stay where it was while the one above it leaves, and the container's own height grows by what its content travelled.

Filler paragraph 85. This run puts the second of the three lines below across the boundary.

Filler paragraph 86. This run puts the second of the three lines below across the boundary.

Filler paragraph 87. This run puts the second of the three lines below across the boundary.

Filler paragraph 88. This run puts the second of the three lines below across the boundary.

Filler paragraph 89. This run puts the second of the three lines below across the boundary.

Filler paragraph 90. This run puts the second of the three lines below across the boundary.

Filler paragraph 91. This run puts the second of the three lines below across the boundary.

Filler paragraph 92. This run puts the second of the three lines below across the boundary.

Filler paragraph 93. This run puts the second of the three lines below across the boundary.

Filler paragraph 94. This run puts the second of the three lines below across the boundary.

Filler paragraph 95. This run puts the second of the three lines below across the boundary.



Either side of the break point may force it

§3.1 states a forced break of the break *point*, not of a box: it is taken if the earlier item's break-after or the later item's break-before asks for one. The first line below declares break-after: page, so the line after it opens the next page even though nothing in that line asks for anything.

Filler paragraph 96. There is room left on this page, so nothing but the declared break moves the second line off it.

Filler paragraph 97. There is room left on this page, so nothing but the declared break moves the second line off it.

Filler paragraph 98. There is room left on this page, so nothing but the declared break moves the second line off it.

BREAK-AFTER: PAGE

Item 1

This line stays where the flow put it — the break is after it, not before it.

BREAK-AFTER: PAGE

Item 2

Its neighbour on the same line, declaring the same thing.

NO BREAK VALUE

Item 3

Nothing here asks for a break, yet the line opens the next page: the break point above it was forced from the other side.

NO BREAK VALUE

Item 4

It travels with its line, as a line always does.

An avoided break takes the line above it too

§3.1's other half. A break-avoidance value on either side of a break point forbids an unforced break there, and honouring it means moving the *earlier* line: the line below travels to the next page because it may not be cut, and the line chained to it by break-after: avoid follows rather than being stranded at the foot of the page its successor just left. This is the user-agent print sheet's h1–h6 { break-after: avoid } for a heading that happens to be a flex item.

Filler paragraph 100. This run puts the pair of lines below at the foot of their page.

Filler paragraph 101. This run puts the pair of lines below at the foot of their page.

Filler paragraph 102. This run puts the pair of lines below at the foot of their page.

Filler paragraph 103. This run puts the pair of lines below at the foot of their page.

Filler paragraph 104. This run puts the pair of lines below at the foot of their page.

Filler paragraph 105. This run puts the pair of lines below at the foot of their page.

Filler paragraph 106. This run puts the pair of lines below at the foot of their page.

Filler paragraph 107. This run puts the pair of lines below at the foot of their page.

Filler paragraph 108. This run puts the pair of lines below at the foot of their page.

Filler paragraph 109. This run puts the pair of lines below at the foot of their page.

Filler paragraph 110. This run puts the pair of lines below at the foot of their page.

BREAK-AFTER: AVOID

Heading line

Nothing here asks to move. It travels because the break point below it may not be broken.

SAME LINE

Its neighbour

A line moves as a unit, so this comes along.

BREAK-INSIDE: AVOID

Section body

This line meets the page boundary and may not be cut, so it opens the next page.

SAME LINE

Its neighbour

The two lines arrive together, with the spacing between them preserved.

Wrap-reverse reads down the page, not down the source

flex-wrap: wrap - reverse reverses where the lines sit, so the first line in the source is the *last* one down the page. What follows a line that moves is the line physically below it, which here is the *earlier* one in the source; and the break point between the two is the one above it. Read the source order as though it ran down the page and the moved line is drawn over the top of a line that stayed where it was.

Filler paragraph 120. This run puts the container's upper line — the second of the two in the source — across the page boundary.

Filler paragraph 121. This run puts the container's upper line — the second of the two in the source — across the page boundary.

Filler paragraph 122. This run puts the container's upper line — the second of the two in the source — across the page boundary.

Filler paragraph 123. This run puts the container's upper line — the second of the two in the source — across the page boundary.

Filler paragraph 124. This run puts the container's upper line — the second of the two in the source — across the page boundary.

Filler paragraph 125. This run puts the container's upper line — the second of the two in the source — across the page boundary.

Filler paragraph 126. This run puts the container's upper line — the second of the two in the source — across the page boundary.

Filler paragraph 127. This run puts the container's upper line — the second of the two in the source — across the page boundary.

SOURCE LINE 2

Item 3

First down the page. This line meets the boundary and may not be cut, so it opens the next page.

SOURCE LINE 2

Item 4

The two lines arrive in the order they are drawn in, one below the other.

SOURCE LINE 1

Item 1

Last down the page, though first in the source. It follows the line above it rather than staying behind when that line leaves.

SOURCE LINE 1

Item 2

Its neighbour on the same line, travelling with it as a line always does.